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| 09/841,008 | 04/25/2001 | Paul Kennedy | 033048-019 | 4932 |

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EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT PAPER NUMBER

2131

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,008

Applicant(s)

KENNEDY, PAUL

Examiner

Christian La Forgia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

AT

DETAILED ACTION

1. The amendment filed 23 March 2005 has been noted and made of record.
2. Claims 1-8 have been cancelled as per Applicant's request.
3. Newly added claims 9-25 have been presented for examination.

Response to Arguments

4. Applicant's arguments with respect to claims 9-25 have been considered but are moot in view of the new ground(s) of rejection.
5. See further rejections that follow.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claims 9-12, 14-18, 20-23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,438,549 to Aldred et al., hereinafter Aldred, in view of U.S. Patent 6,708,170 to Byrne et al., hereinafter Byrne.
8. As per claims 9, 16, and 21, Aldred discloses a method for authenticating users to individual network devices that are distributed among a plurality of locations, comprising the following steps:

storing a directory structure at one of said locations, said directory structure comprising a root node, a first level of nodes below said root node that are associated with respective organizations to which said network devices are assigned, and at least one further level of nodes below said first level that identify users who are authorized to access the network devices assigned to the organization associated with a parent first-level node and authentication

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information for said users (Figures 1 [block 21], 2, 7, column 3, line 64 to column 4, line 20, column 6, lines 51-60);

in response to a request by a user for access to one of said network devices, determining which organization to which said one device is assigned and whether said user is identified on a node below the first-level node associated with the determined organization (column 1, line 66 to column 2, line 21, column 4, line 65 to column 5, line 16, column 7, line 65 to column 8, line 4); and

authenticating said user to said device if the user is so identified (column 7, line 65 to column 8, line 4).

9. Aldred does not teach replicating said directory structure among said plurality of locations.

10. Byrne discloses replicating said directory structure among said plurality of locations (column 2, lines 32-37).

11. Both Aldred and Byrne are related in controlling access to various resources using a access control lists with the lightweight directory access protocol.

12. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replicate the directory structure among a plurality of locations, since Byrne discloses at column 2, lines 32-37 that such a modification allows each machine to define the group and entry information for each domain.

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13. Regarding claims 10, 17, and 22, Aldred teaches wherein said directory structure further includes nodes below said first level that identify resources of an associated organization to which authenticated users are allowed access (column 4, line 65 to column 5, line 16).

14. Regarding claim 11, Byrne teaches wherein said determining step is performed with reference to a replicated copy of said directory structure at the location containing said one device (column 2, lines 32-37, i.e. authentication based on replication).

15. Regarding claim 12, Byrne discloses wherein said network devices comprise servers, and said locations are data centers (column 2, lines 23-43, i.e. distributed computing environment, multiple servers).

16. Regarding claims 14, 18, and 23, Aldred teaches wherein the same user identification and authentication information is contained at a plurality of said further level nodes that are respectively associated with different ones of said first-level nodes (column 4, line 65 to column 5, line 16).

17. Regarding claim 15, Aldred and Byrne do not teach wherein said replicating step is carried out automatically without user input.

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the replicating step automatically, since it has been held that merely

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automating a step requires routine skill in the art. See MPEP § 2144.04, see also *In re Venner*, 262 F.2d 91, 95, 120 USPQ 192, 194 (CCPA 1958).

19. Regarding claims 20 and 25, Aldred teaches wherein at least some of network resources are servers that each include an authentication module that is responsive to a request for access to determine the organization to which its corresponding server is assigned and restrict directory searches to the further-level nodes below the first-level node associated with the determined organization (column 1, line 66 to column 2, line 21, column 4, line 65 to column 5, line 16, column 7, line 65 to column 8, line 4).

20. Claims 13, 19, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldred in view of Byrne as applied above, and further in view of U.S. Patent No. 6,446,204 to Pang et al., hereinafter Pang.

21. Regarding claims 13, 19, and 24, Aldred and Byrne do not wherein at least some of said locations contain at least two replicated copies of said directory structure, and further including the steps of distributing access requests among said replicated copies by means of a load balancer.

22. Pang teaches wherein at least some of said locations contain at least two replicated copies of said directory structure, and further including the steps of distributing access requests among said replicated copies by means of a load balancer (figure 8, column 23, lines 50-64).

23. Aldred, Byrne and Pang are all related in the field of distributed authentication.

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24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to distribute the access requests by means of a load balancer, since Pang states at column 23, lines 50-64 that such a modification would balance the load on the authentication hosts, thereby preventing bottlenecks.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

26. The following patents are cited to further show the state of the art with respect to distributed authentication, such as:

United States Patent No. 6,470,332 to Weschler, which is cited to show searching for, and retrieving, profile attributes based on other target profile attributes and associated profiles.

United States Patent No. 6,681,330 to Bradford et al., which is cited to show a heterogeneous computer network system with unobtrusive cross-platform user access.

United States Patent No. 6,539,021 to Kennelly et al., which is cited to show role based management independent of the hardware topology.

United States Patent No. 6,625,615 to Shi et al., which is cited to show data processing for multi-level directory searches.

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

28. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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